

PATENT  
USSN 10/044,692  
TTC Docket 002640US  
Geron Docket 018/213c

CLAIM AMENDMENTS

1. *(Currently amended)* A composition comprising ~~an isolated recombinant nucleic acid~~  
a recombinant nucleic acid vector or plasmid that encodes:  
a) human telomerase reverse transcriptase (hTERT) protein (SEQ. ID NO:2); or  
b) a polypeptide fragment of SEQ. ID NO:2 consisting of at least 20 contiguous amino acids  
~~of SEQ. ID NO:2~~ which is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

2 to 9. *CANCELLED*

10. *(Previously presented)* The composition of claim 1, further comprising an adjuvant.

11. *(Withdrawn) (Currently amended)* A method for eliciting ~~an immune response to an antibody~~  
response specific for human telomerase reverse transcriptase in a subject, comprising  
administering to the subject the composition of claim 1.

12. *(Withdrawn) (Currently amended)* A method for eliciting ~~an immune response to an antibody~~  
response specific for human telomerase reverse transcriptase in a subject, comprising  
administering to the subject the composition of claim 21.

13. *(Withdrawn) (Currently amended)* A method for eliciting ~~an immune response to an antibody~~  
response specific for human telomerase reverse transcriptase in a subject, comprising  
administering to the subject the composition of claim 23.

14. *(Withdrawn) (Currently amended)* A method for eliciting ~~an immune response to an antibody~~  
response specific for human telomerase reverse transcriptase in a subject, comprising  
administering to the subject the composition of claim 25.

15. *(Withdrawn) (Currently amended)* A method for eliciting ~~an immune response to an antibody~~  
response specific for human telomerase reverse transcriptase in a subject, comprising  
administering to the subject the composition of claim 30.

16 to 18. *CANCELLED*

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19. *(Currently amended)* The composition of claim 1, ~~in an amount wherein said nucleic acid is comprising an amount of said nucleic acid that encodes a polypeptide~~ effective for eliciting an immunological response specific for hTRT protein (SEQ. ID NO:2) in a mammalian subject.
20. *(Original)* The composition of claim 1, packaged in a container along with an indication of how the composition is to be administered.
21. *(Currently amended)* ~~A composition comprising an isolated recombinant nucleic acid that encodes a polypeptide fragment consisting essentially of at least 10 contiguous amino acids of SEQ. ID NO:2 which is~~  
A recombinant nucleic acid vector or plasmid that encodes hTRT (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of least 10 contiguous amino acids, wherein said fragment is immunogenic for a specific response against hTRT (SEQ. ID NO:2).
22. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid encodes full-length hTRT protein (SEQ. ID NO:2).
23. *(Currently amended)* The nucleic acid ~~composition~~ of claim 21, ~~wherein the nucleic acid which encodes a polypeptide fragment consisting essentially of~~ a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids ~~of SEQ. ID NO:2.~~
24. *(Currently amended)* The nucleic acid ~~composition~~ of claim 21, ~~wherein the nucleic acid which encodes a polypeptide fragment consisting essentially of~~ a fragment of SEQ. ID NO:2 of at least 50 contiguous amino acids ~~of SEQ. ID NO:2.~~
25. *(Previously presented)* A composition comprising an isolated nucleic acid that encodes a chimeric protein consisting of an immunogenic fragment of SEQ. ID NO:2 fused to another protein that enhances the immune response to said fragment of SEQ. ID NO:2.
26. *(Previously presented)* The nucleic acid composition of claim 25, wherein the other protein is keyhole limpet hemocyanin (KLH).
27. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is DNA.
28. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is RNA.

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29. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in a plasmid.

30. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in a viral vector.

31. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in an adenovirus vector.

32. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in a herpes virus or Epstein Barr Virus vector.

33. *(Currently amended)* ~~The nucleic acid composition of claim 1, wherein the nucleic acid further comprises a promoter to control expression of said hTERT protein or fragment~~  
A recombinant nucleic acid in which an encoding region is operably linked to a promoter that controls expression of said encoding region,

wherein said encoding region encodes hTERT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids; and

wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

34 to 38. CANCELLED

39. *(Currently amended)* ~~An isolated recombinant nucleic acid that encodes:~~

~~a) human telomerase reverse transcriptase (hTERT) protein (SEQ. ID NO:2); or~~

~~b) a polypeptide fragment consisting essentially of an amino acid sequence encoded in~~

A recombinant nucleic acid vector or plasmid that encodes hTERT (SEQ. ID NO:2), or a fragment of SEQ. ID NO:2, wherein said vector or plasmid comprises at least about 50 consecutive bases of SEQ. ID NO:1;

and wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).

40. *(Currently amended)* The nucleic acid of claim 39, ~~which encodes~~ wherein said fragment is encoded by at least about 100 consecutive bases of SEQ. ID NO:1.

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41. *(Currently amended)* An isolated recombinant nucleic acid comprising ~~a promoter and a sequence encoding an hTERT peptide fragment,~~  
~~wherein said encoding sequence consists essentially of at least 50 consecutive bases of SEQ. ID NO:1;~~  
~~wherein said promoter controls expression of said encoding sequence;~~  
an encoding region operably linked to a promoter that controls expression of said encoding region,  
wherein said encoding region encodes hTERT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2, wherein said encoding region comprises at least about 50 consecutive bases of SEQ. ID NO:1; and  
~~wherein the recombinant nucleic acid~~ wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
42. *(Currently amended)* The nucleic acid of claim 41, wherein ~~said encoding sequence consists essentially of~~ said fragment is encoded by at least about 200 consecutive bases of SEQ. ID NO:1.
43. *(Currently amended)* An isolated recombinant nucleic acid that encodes ~~a polypeptide consisting essentially of at least 10 contiguous amino acids of SEQ. ID NO:2, which a fragment of SEQ. ID NO:2, wherein said fragment consists of at least 50 consecutive amino acids, and wherein said fragment~~ does not have telomerase catalytic activity when cotranslated with telomerase RNA component, but ~~which~~ wherein said fragment is immunogenic for a specific response against hTERT (SEQ. ID NO:2).
- 44 to 46. CANCELLED.
47. *(Previously presented)* The nucleic acid of claim 43, further comprising a promoter to control expression of said polypeptide.
48. *(Previously presented)* The nucleic acid of claim 43, contained in a plasmid vector.
49. *(Previously presented)* The nucleic acid of claim 43, contained in a viral vector.
50. *(Previously presented)* The nucleic acid of claim 43, contained in an adenovirus vector, a herpes virus vector, or Epstein Barr Virus vector.

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51. *(Previously presented)* The composition of claim 25, wherein said nucleic acid further comprises a promoter to control expression of said chimeric protein.
52. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in a plasmid vector.
53. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in a viral vector.
54. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in an adenovirus vector, a herpes virus vector, or Epstein Barr Virus vector.
55. *(New)* The nucleic acid composition of claim 30, wherein the nucleic acid also contains viral sequences for replication and packaging of the vector.
56. *(New)* The nucleic acid composition of claim 21, wherein said encoding region comprises altered codons selected to increase the rate of peptide expression.
57. *(New)* A composition comprising an isolated RNA encoding a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids which is immunogenic for a specific response against hTRT (SEQ. ID NO:2).